# What Works Clearinghouse



# Read Naturally®

## Program Description[1]

*Read Naturally*® is designed to improve reading fluency using a combination of books, audiotapes, and computer software. The program has three main strategies: repeated reading of text for developing oral reading fluency, teacher modeling of story reading, and systematic monitoring of student progress by the students themselves and by teachers. Students work at a reading level appropriate for their achievement level and progress through the program independently. The program has two versions. In one, students use audiocassettes or CDs in conjunction with hard-copy reading materials. In the second version, students use only the *Read Naturally*® computer program.

## Research[2]

One study of *Read Naturally*® that falls within the scope of the Students with Learning Disabilities review protocol meets What Works Clearinghouse (WWC) evidence standards. The study includes 20 students with learning disabilities from the 4th to the 6th grade in one parochial elementary school in Washington State.[3]

Based on this study, the WWC considers the extent of evidence for *Read Naturally*® for students with learning disabilities to be small for reading fluency and writing. The one study that meets WWC evidence standards did not examine the effectiveness of *Read Naturally*® for students with learning disabilities in the alphabetics, reading comprehension, general reading achievement, math, science, social studies, or progressing in school domains.

1. The descriptive information for this program was obtained from a publicly available source: the program's website (http://www.readnaturally.com, downloaded December 2009). The WWC requests developers to review the program description sections for accuracy from their perspective. Further verification of the accuracy of the descriptive information for this program is beyond the scope of this review. The literature search reflects documents publicly available by December 2009.
2. The studies in this report were reviewed using WWC Evidence Standards, Version 2.0 (see the WWC Procedures and Standards Handbook, Chapter III), as described in protocol Version 2.0.
3. The evidence presented in this report is based on available research. Findings and conclusions may change as new research becomes available.

## Effectiveness

*Read Naturally*® was found to have no discernible effects on reading fluency and potentially positive effects on writing for students with learning disabilities.

| | *Reading fluency* | *Writing* |
|---|---|---|
| **Rating of effectiveness** | No discernible effects | Potentially positive effects |
| **Improvement index**[4] | Average: –6 percentile points | +13 percentile points |
| | Range: –9 to –4 percentile points | na |

na = not applicable

## Additional program information

### Developer and contact

Developed by Candyce Ihnot, *Read Naturally*® is distributed by Read Naturally, Inc., 2945 Lone Oak Drive, Suite 190, Saint Paul, MN 55121. Email: info@readnaturally.com. Web: www.readnaturally.com. Telephone: (651) 425-4058 or (800) 788-4085. Fax: (651) 452-9204.

### Scope of use

*Read Naturally*® was first published in 1991. According to the developer, it has been implemented with special education, Title I, and English language learner students throughout the United States.

### Teaching

The *Read Naturally*® teacher's manual includes descriptions of materials needed to implement the program, instructions for implementing the program, and sample lesson plans for introducing the program to students. As part of the intervention, students read along with an audio recording of passages to build word recognition and accuracy. During the repeated reading phase, students do one-minute practice readings to build mastery of the passage. Once students think they can achieve their reading speed goal, they alert the teacher. The teacher then conducts a "pass timing" in which four criteria are evaluated (student reaches goal rate, student makes three or fewer errors, passage is read with appropriate phrasing, and comprehension questions are answered correctly).

### Cost

*Read Naturally*® audiocassettes or audio CDs for each level cost $114 and $119, respectively. The computer program costs $109 per level for one computer and $349 per level for a school network version. Additional materials—including timers, posters, glossaries, crossword puzzles, assessment materials, and training—are available at additional cost. Students' specific needs determine the materials needed and the ultimate cost of the implementation.

## Research

Forty-three studies reviewed by the WWC investigated the effects of *Read Naturally*® on students with learning disabilities. One study (Chenault et al., 2006) is a randomized controlled trial that meets WWC evidence standards. The remaining 42 studies do not meet either WWC evidence standards or eligibility screens.

### Meets evidence standards

Chenault et al. (2006) examined the effects of *Read Naturally*® using a randomized controlled trial involving students with learning disabilities in the 4th, 5th, and 6th grades from one parochial elementary school in Washington State. All students in the study were identified by the researchers as dyslexic on the basis of a discrepancy of at least one standard deviation between their

4. These numbers show the average and range of student-level improvement indices for all findings across the study.

## Research *(continued)*

Verbal Comprehension Index on the Wechsler Intelligence Scale for Children (Second Edition) and their score on one or more measures of reading and writing. Twenty students who were eligible for the study were randomly assigned to one of two interventions: *Read Naturally*® or *Pay Attention!* Both interventions were implemented in ten 25-minute sessions. Pretest data were collected prior to the start of the interventions, and a first set of posttest data was collected after completion of the 10 sessions.[5]

### Extent of evidence

The WWC categorizes the extent of evidence in each domain as small or medium to large (see the WWC Procedures and Standards Handbook, Appendix G). The extent of evidence takes into account the number of studies and the total sample size across the studies that meet WWC evidence standards with or without reservations.[6]

The WWC considers the extent of evidence for *Read Naturally*® to be small for students with learning disabilities in the reading fluency and writing domains. No studies that meet WWC evidence standards with or without reservations examined the effectiveness of *Read Naturally*® on students with learning disabilities in the alphabetics, reading comprehension, general reading achievement, math, science, social studies, or progressing in school domains.

## Effectiveness

### Findings

The WWC review of interventions for students with learning disabilities addresses student outcomes in nine domains: alphabetics, reading fluency, reading comprehension, general reading achievement, writing, math, science, social studies, and progressing in school. The study included in this report covers two domains: reading fluency and writing. The findings below present the authors' estimates and WWC-calculated estimates of the size and the statistical significance of the effects of *Read Naturally*® on students with learning disabilities.[7]

*Reading fluency.* Chenault et al. (2006) found no statistically significant effects of *Read Naturally*® on either of two measures of reading fluency: the Reading Accuracy and Reading Rate subtests from the Gray Oral Reading Test–III. The WWC confirmed these findings. Furthermore, the WWC-calculated average effect size across the two outcomes was not large enough to be considered substantively important.

*Writing.* Chenault et al. (2006) found no statistically significant effects on the Written Expression subtest of the Wechsler Individual Achievement Test (Second Edition). The WWC confirmed this finding. However, the WWC-calculated average effect size was large enough to be considered substantively important (greater than 0.25).

### Rating of effectiveness

The WWC rates the effects of an intervention in a given outcome domain as positive, potentially positive, mixed, no discernible effects, potentially negative, or negative. The rating of

5. After the first 10 sessions were completed, students from the two groups were combined and participated in 10 more sessions with a third intervention (*Writing Lessons with Attention Bridges*), after which a second posttest was administered. As the focus of this report is *Read Naturally*®, this review is based only on a comparison of pretest and first posttest data.
6. The extent of evidence categorization was developed to tell readers how much evidence was used to determine the intervention rating, focusing on the number and size of studies. Additional factors associated with a related concept—external validity, such as the students' demographics and the types of settings in which studies took place—are not taken into account for the categorization. Information about how the extent of evidence rating was determined for *Read Naturally*® is in Appendix A5.
7. The level of statistical significance was reported by the study authors or, when necessary, calculated by the WWC to correct for clustering within classrooms or schools and for multiple comparisons. For the formulas the WWC used to calculate the statistical significance, see WWC Procedures and Standards Handbook, Appendix C for clustering and WWC Procedures and Standards Handbook, Appendix D for multiple comparisons. In the case of Chenault et al. (2006), no corrections for clustering or multiple comparisons were needed.

## Effectiveness *(continued)*

effectiveness takes into account four factors: the quality of the research design, the statistical significance of the findings, the size of the difference between participants in the intervention and the comparison conditions, and the consistency in findings across studies (see the WWC Procedures and Standards Handbook, Appendix E).

**The WWC found *Read Naturally*® to have no discernible effects on reading fluency and potentially positive effects on writing for students with learning disabilities**

### Improvement index

The WWC computes an improvement index for each individual finding. In addition, within each outcome domain, the WWC computes an average improvement index for each study and an average improvement index across studies (see the WWC Procedures and Standards Handbook, Appendix F). The improvement index represents the difference between the percentile rank of the average student in the intervention condition and the percentile rank of the average student in the comparison condition. Unlike the rating of effectiveness, the improvement index is entirely based on the size of the effect, regardless of the statistical significance of the effect, the study design, or the analysis. The improvement index can take on values between –50 and +50, with positive numbers denoting favorable results for the intervention group.

Based on one study, the average improvement index for reading fluency is –6 percentile points, with a range of –9 to –4 percentile points across two findings; the improvement index for writing is +13 percentile points based on one finding.

### Summary

The WWC reviewed 43 studies on *Read Naturally*® for students with learning disabilities. One of these studies meets WWC evidence standards; the remaining 42 studies do not meet either WWC evidence standards or eligibility screens. Based on the one study, the WWC found that *Read Naturally*® has no discernible effects on reading fluency and potentially positive effects on writing for students with learning disabilities. The conclusions presented in this report may change as new research emerges.

## References

### Meets WWC evidence standards


Chenault, B., Thomson, J., Abbott, R. D., & Berninger, V. W. (2006). Effects of prior attention training on child dyslexics' response to composition instruction. *Developmental Neuropsychology*, *29*(1), 243–260.

***Additional source:***

Chenault, B. M. (2004). Effects of prior attention training and a composition curriculum with attention bridges for students with dyslexia and/or dysgraphia (Doctoral dissertation, University of Washington). *Dissertation Abstracts International*, *65*(04A), 114–1246.


### Studies that fall outside the Students with Learning Disabilities review protocol or do not meet WWC evidence standards


Arlt, K. L. C. (2001). *The effects of* Read Naturally *on the reading fluency and reading comprehension of students with mild learning disabilities*. Unpublished master's thesis, Wayne State College, NE. The study is ineligible for review because it does not use a comparison group.

Berkeley, S. (2007). Reading comprehension strategy instruction and attribution retraining for secondary students with disabilities (Doctoral dissertation, George Mason University). *Dissertation Abstracts International*, *68*(03A), 308–949. The study does not meet WWC evidence standards because it does not provide adequate information to determine whether it uses an outcome that is valid or reliable.

Berninger, V. W., Abbott, R. D., Abbott, S. P., Graham, S., & Richards, T. (2002). Writing and reading: Connections between language by hand and language by eye. *Journal of Learning Disabilities*, *35*(1), 39–56. The study is ineligible for review because it does not use a sample aligned with the protocol—the sample includes less than 50% students with learning disabilities.

## References *(continued)*


Browne, C. (2007). *The effect of the* Read Naturally *program on fluency and comprehension with special education students*. Unpublished master's thesis, Gratz College, Melrose Park, PA. The study is ineligible for review because it does not use a comparison group.

Busch, T. W., Pederson, K., Espin, C. A., & Weissenburger, J. W. (2001). Teaching students with learning disabilities: Perceptions of a first-year teacher. *Journal of Special Education*, *35*(2), 92. The study is ineligible for review because it does not use a comparison group.

Chavez-Amador, O. (2004). *Do computerized software programs improve reading fluency:* Read Naturally? Unpublished master's thesis, California State University, San Marcos. The study is ineligible for review because it does not use a comparison group.

Christ, T. J., & Davie, J. (2009). *Empirical evaluation of* Read Naturally *effects: A randomized controlled trial*. Unpublished manuscript. The study is ineligible for review because it does not use a sample aligned with the protocol—the sample includes less than 50% students with learning disabilities.

Coleman, D. (2009). Read Naturally *and reading attitudes*. Retrieved February 12, 2009, from http://www.readnaturally.com/approach/research_attitudes.htm. The study is ineligible for review because it does not use a sample aligned with the protocol—the sample includes less than 50% students with learning disabilities.

Conderman, G., & Strobel, D. (2006). Problem solving with guided repeated oral reading instruction. *Intervention in School & Clinic*, *42*(1), 34–39. The study is ineligible for review because it does not use a comparison group.

Crawford, L. (2008). School profile: W. F. Burns Oak Hill Elementary. *Intervention News*, 2008 (February). Retrieved March 4, 2010, from http://www.fcrr.org/newsletter/InterventionNews_February08.pdf. The study is ineligible for review because it does not use a sample aligned with the protocol—the sample includes less than 50% students with learning disabilities.

Davidson, M. R. (n.d.). Read Naturally, *scientific research, and* Reading First. Saint Paul, MN: Read Naturally, Inc. The study is ineligible for review because it is not a primary analysis of the effectiveness of an intervention, such as a meta-analysis or research literature review.

De la Colina, M. G. (1999). The effectiveness of repeated reading, teacher modeling, and self-monitoring for Spanish beginning readers (Doctoral dissertation, Texas A&M University). *Dissertation Abstracts International*, *60*(09A), 116–3254. The study is ineligible for review because it does not examine an intervention conducted in English.

Falk, A. G. (2008). *The impact of* Read Naturally *on oral reading fluency skills for first and second grade students participating in a response to intervention instructional model*. Unpublished master's thesis, California State University San Marcos. The study is ineligible for review because it does not use a sample aligned with the protocol—the sample includes less than 50% students with learning disabilities.

Hasbrouck, J. E., Ihnot, C., & Rogers, G. H. (1999). *Read Naturally*: A strategy to increase oral reading fluency. *Reading Research and Instruction*, *39*(1), 27–39. The study is ineligible for review because it is not a primary analysis of the effectiveness of an intervention, such as a meta-analysis or research literature review.

Heise, K. (2004). The effects of the *Read Naturally* program on fluency, accuracy, comprehension, and student motivation in students with learning disabilities (Master's thesis, California State University, Fullerton). *Masters Abstracts International*, *42*(06), 70–1957. The study is ineligible for review because it does not use a comparison group.

Hinrichs, A. L. (2008). *The effects of* Read Naturally *on physical science achievement*. Unpublished master's thesis, Wayne State College, NE. The study is ineligible for review because it does not use a comparison group.

Hughes, A. F., & Adera, B. (2006). Education and day treatment opportunities in schools: Strategies that work. *Preventing School Failure*, *51*(1), 26–30. The study is ineligible for

## References *(continued)*


review because it is not a primary analysis of the effectiveness of an intervention, such as a meta-analysis or research literature review.

Ihnot, C. (n.d.). Read Naturally *case study 1: Original study, Minneapolis, Minn*. Retrieved December 22, 2009, from http://www.readnaturally.com/approach/case1.htm. The study is ineligible for review because it does not use a sample aligned with the protocol—the sample includes less than 50% students with learning disabilities.

Irvin, J. L. (2006). *A resource guide for adolescent literacy: Prepared for the Bill and Melinda Gates Foundation*. Tallahassee, FL: National Literacy Project. The study is ineligible for review because it is not a primary analysis of the effectiveness of an intervention, such as a meta-analysis or research literature review.

Johnson, G., & Weaver, J. (n.d.). Read Naturally *case study 4: Special education students, Huron County, Mich*. Retrieved December 22, 2009, from http://www.readnaturally.com/approach/case4.htm. The study is ineligible for review because it does not use a sample aligned with the protocol—the sample includes less than 50% students with learning disabilities.

Johnsrud, B. L. A. (2005). *Impact of the* Read Naturally *program on elementary students*. Unpublished master's thesis, Minot State University, ND. The study is ineligible for review because it does not use a comparison group.

Kemp, S. C. (2006). Teaching to *Read Naturally*: Examination of a fluency training program for third grade students (Doctoral dissertation, University of California, Irvine and University of California, Los Angeles). *Dissertation Abstracts International*, *67*(07A), 95–2447. The study is ineligible for review because it does not use a sample aligned with the protocol—the sample includes less than 50% students with learning disabilities.

Koehn, J. (2004). *The effects of the* Read Naturally *program on the fluency rate of third graders*. Unpublished master's thesis, Graceland University, Cedar Rapids, IA. The study is ineligible for review because it does not use a comparison group.

Linan-Thompson, S., Vaughn, S., Hickman-Davis, P., & Kouzekanani, K. (2003). Effectiveness of supplemental reading instruction for second-grade English language learners with reading difficulties. *Elementary School Journal*, *103*(3), 221. The study is ineligible for review because it does not use a sample aligned with the protocol—the sample includes less than 50% students with learning disabilities.

Mather, N. (1992). Whole language reading instruction for students with learning disabilities: Caught in the cross fire. *Learning Disabilities Research & Practice*, *7*(2), 87–95. The study is ineligible for review because it is not a primary analysis of the effectiveness of an intervention, such as a meta-analysis or research literature review.

McCarthy, A. L. (2006). *The impact of the use of* Read Naturally *with struggling readers to help increase oral reading fluency*. Unpublished master's thesis, Benedictine University, Lisle, IL. The study is ineligible for review because it does not use a comparison group.

Miller, C. (2006). *Will the* Read Naturally *program produce better results among elementary-aged students when comparing word per minute fluency probes than a multi-sensory, phonetic approach to reading?* Unpublished master's thesis, Winona State University, MN. The study is ineligible for review because it does not use a comparison group.

Moran, P. M. (2007). *Repeated reading: Effects on reading fluency and comprehension of elementary students with learning disabilities*. Unpublished master's thesis, Bethel University, St. Paul, MN. The study is ineligible for review because it is not a primary analysis of the effectiveness of an intervention, such as a meta-analysis or research literature review.

Onken, J. S. (2002). *The effects of the* Read Naturally *program on middle school students' oral reading fluency and reading comprehension skills in a residential treatment setting*. Unpublished master's thesis, Winona State University, MN. The study is ineligible for review because it does not use a comparison group.

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Otaiba, S. A., & Rivera, M. O. (2006). Individualizing guided oral reading fluency instruction for students with emotional and behavioral disorders. *Intervention in School & Clinic*, *41*(3), 144–149. The study is ineligible for review because it is not a primary analysis of the effectiveness of an intervention, such as a meta-analysis or research literature review.

Reed, J. M., Marchand-Martella, N., Martella, R. C., & Kolts, R. L. (2007). Assessing the effects of the *Reading Success Level A* program with fourth-grade students at a Title I elementary school. *Education & Treatment of Children*, *30*(1), 45–68. The study is ineligible for review because it does not use a comparison group.

Sadler, C., & Sugai, G. (2009). Effective behavior and instructional support: A district model for early identification and prevention of reading and behavior problems. *Journal of Positive Behavior Interventions*, *11*(1), 35–46. The study is ineligible for review because it does not use a comparison group.

Stoll, S. R. (2007). *Effects of the* Read Naturally *program on student fluency*. Unpublished master's thesis, Graceland University, Cedar Rapids, IA. The study is ineligible for review because it does not use a comparison group.

Trahant, J. (2006). *The impact of the use of* Read Naturally *with junior high students with mild mental impairment*. Unpublished master's thesis, Benedictine University, Lisle, IL. The study is ineligible for review because it does not use a sample aligned with the protocol—the sample includes less than 50% students with learning disabilities.

Treptow, M. A., Burns, M. K., & McComas, J. J. (2007). Reading at the frustration, instructional, and independent levels: The effects on students' reading comprehension and time on task. *School Psychology Review*, *36*(1), 159–166. The study is ineligible for review because it does not use a sample aligned with the protocol—the sample includes less than 50% students with learning disabilities.

Valentine, S. E. (2003). *The effects of* Read Naturally *on reading fluency in a reading lab with fourth, fifth, and sixth grade students*. Unpublished master's thesis, California State University, Stanislaus, Turlock. The study is ineligible for review because it does not use a sample aligned with the protocol—the sample includes less than 50% students with learning disabilities.

Vang, K. (2006). *The effects of using* Read Naturally *on reading fluency with struggling readers*. Unpublished master's thesis, California State University, Stanislaus, Turlock. The study is ineligible for review because it does not use a sample aligned with the protocol—the sample includes less than 50% students with learning disabilities.

Viadero, D. (1997). Dealing with dyslexia. *Education Week*, *17*(12), 24. The study is ineligible for review because it is not a primary analysis of the effectiveness of an intervention, such as a meta-analysis or research literature review.

Wahl, M. (2006). Read Naturally. Tallahassee, FL: Florida Center for Reading Research. The study is ineligible for review because it is not a primary analysis of the effectiveness of an intervention, such as a meta-analysis or research literature review.

Williams, L. (2006). *Improving second grade students' oral reading fluency with* Read Naturally. Unpublished educational specialist's thesis, National-Louis University, Chicago, IL. The study is ineligible for review because it does not use a sample aligned with the protocol—the sample includes less than 50% students with learning disabilities.

Wilson, M. L. (2008). *Building fluency through repeated readings*. Unpublished master's thesis, Hamline University, Saint Paul, MN. The study is ineligible for review because it does not use a comparison group.

Wright, S. A. (2006). *The effects of* Read Naturally *on students' oral reading fluency and reading comprehension*. Unpublished master's thesis, California State University, San Marcos, San Marcos, CA. The study is ineligible for review because it does not use a sample aligned with the protocol—the sample includes less than 50% students with learning disabilities.